IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Girish V. Prabhu et al.

AN APPARATUS FOR THE MANAGEMENT
OF PHYSIOLOGICAL AND
PSYCHOLOGICAL STATE OF AN
INDIVIDUAL USING IMAGES - OVERALL
SYSTEM

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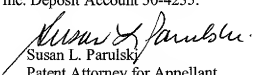Alexandria, VA. 22313-1450

Sir:

Group Art Unit: 3739

Examiner: Rosiland Rollins

RESPONSE TO ORDER RETURNING UNDOCKETED APPEAL TO EXAMINER

Enclosed herewith is Appellants' response to the ORDER
RETURNING UNDOCKETED APPEAL TO EXAMINER for the above-identified
application providing a summary of the claimed subject matter as required by 37 CFR
41.37(c)(1)(v). As requested by the ORDER, only this paper is being provided; an
entire new Appeal Brief is not being filed.

The Commissioner is hereby authorized to charge any fee associated
with this response to Carestream Health, Inc. Deposit Account 50-4233.

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SUMMARY OF THE CLAIMED SUBJECT MATTER
AS REQUIRED BY 37 CFR 41.37(c)(1)(v)

The physical, emotional and mental well-being of an individual can contribute greatly to the quality of life of that individual. Currently, stress results in numerous physical reactions, such as, headache, muscle tension, dizziness or sleeplessness, weight gain, chronic coughing, nervous ticks, stomach upset and shortness of breath. Job stress has been estimated to cost American business $300,000,000,000 annually. Stress is the response of the body and/or mind to a demand placed upon it.

The present invention proposes to use images reduce stress, more particularly, for the purpose of optimizing one's physiological and psychological state.

Generally, as shown in Figure 14, the system of the present invention includes several interrelated components that can be used to help one to manage one's physiological and or psychological state, including a Portable Biosensor Device (102), a Master Set of Images (104)/Therapeutic Image Classification System (106), a Biometric Analyzer (108), a Cognitive Analyzer (110), a Personal Image Profiler (112), a Personal Image Classifier (114), and a Visualization System (116)

Employing the present invention, a master set of images is presented to the user. During presentation of the master set of images, the physiological and cognitive states of the user are measured. Then, based on the combined physiological and cognitive measures, a personal profiler (box 24 of Figure 1) generates the user's personal image profile. Based on the personal image profile and a therapeutic image classification system (box 26 of Figure 1) for images in a therapeutic image data bank (databases) (box 28 of Figure 1), activating and deactivating images are selected from the image data base(s) to create a personal image set (box 30 of Figure 1).

Once a personal image set has been established, the user can start a session. The Biometric Analyzer (box 40 of Figure 2) and the Cognitive Analyzer

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(box 42 of Figure 2) can be used to determine a user's desired direction/preference for a session (e.g., relaxation, optimal performance, and excitation) (box 44 of Figure 2).

Based on the inputs, the Personal Profiler (box 46 of Figure 2) decides if the current Personal Image set will work or if an updated, Personal Image profile is needed. The Personal Profiler can also receive inputs from a Portable Biosensor Device (box 48 of Figure 2) and from a user's physiological, cognitive and image use history from a secured data base (box 50 of Figure 2).

A visualization device then presents the images to the user according to one's preferences. The duration and/or sequence presentation of the images is performed based on users physiology (box 54 of Figure 2). Input from a "Coach" (box 56 of Figure 2) may also be provided. The "Coach" can monitor physiological responses of the user and provide feedback in the form of visual feedback, verbal reinforcement, verbal suggestions and/or new techniques.

Thus, the present invention provides an apparatus for facilitating management by an individual of a physiological and/or psychological state of the individual using images.

Independent Claim 1 is directed to an apparatus for facilitating management by an individual of a physiological and/or psychological state of the individual, as stated in the Summary of the Invention on Page 5, lines 20-26, and in the Detailed Description on Page 7, lines 4-7.

As claimed in Claim 1, the apparatus includes a display for a set of images allowing an individual to show a set of images chosen by the individual to one's self wherein the set of images are based on a personalized image profile based on cognitive decisions relating to connectedness, valence and arousal and on biometric analysis. The display allows an individual to show a set of images chosen by the individual to one's self. The display is described in the Specification as a visualization system 116. Refer for example to Page 8, lines 2-4; Page 8, lines 17-23; and Figure 14. The set of images are based on a personalized image profile based on cognitive decisions relating to connectedness, valence and arousal and on biometric analysis. Refer to the personal image

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profiler (box 24 in Figure 1, and described for example on Page 9, lines 4-5) and its inputs from Biosensor Device (box 48 of Figure 2) and data history (box 50 of Figure 2) as described on Page 9, lines 17-21.

Also as claimed in Claim 1, the apparatus further includes a device for allowing the individual to choose images from the set of images which provide a preferred response for the individual, wherein the chosen images provide common measurable physiological response characteristics which define a personalized image response profile for the individual. As described on Page 9, lines 6-21 and shown in Figures 1-2, based on the personal image profile and a therapeutic image classification system (box 26) for images in a therapeutic image data bank (databases) (box 28), activating and deactivating images are selected from the image data base(s) to create a personal image set (box 30). The user then decides (diamond 32) if he or she wants to have a session. If no, the session ends (bubble 34). If yes, the process continues to A in Figure 2. Once a personal image set has been established, the user can start a session (A). The Biometric Analyzer (box 40) and Cognitive Analyzer (box 42) can be used to determine a user's desired direction/preference for a session (e.g., relaxation, optimal performance, and excitation (box 44). Based on the inputs, the Personal Profiler (box 46) decides if the current Personal Image set will work or if an updated, Personal Image profile is needed. If the current image set is determined to be OK (diamond 52), the visualization device presents images to the user according to one's preferences.

Independent Claim 3 is directed to an apparatus for helping an individual manage his/her psychological and/or physiological state, as stated in the Summary of the Invention on Page 5, lines 20-26, and in the Detailed Description on Page 7, lines 4-7.

As claimed in Claim 3, the apparatus includes a first device for allowing an individual to expose a set of stimuli chosen by the individual to one's self wherein the set of stimuli are based on a personalized stimuli profile based on cognitive decisions relating to connectedness, valence and arousal and on biometric analysis. Claim 3 further recites a second device for measuring a

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physiological state of the individual as the individual is exposed to the set of stimuli. Claim 3 also recites a third device for recording stimuli from the set of stimuli which provide a preferred response based on the measured physiological state of the individual. Biometric analyzer 108 (Figure 14) and box 20 (Figure 1) extracts the physiological activation state of user from one or more measured physiological parameters. Biometric analyzer (box 20) and cognitive analyzer measures (box 22 of Figure 1) physiological and cognitive states from the user during presentation of the master set of images, and as such can be used to determine a user's desired direction/preference for a session (e.g., relaxation, optimal performance, and excitation (box 44 of Figure 2). Refer to page 10, lines 10-30.

Independent Claim 6 is directed to an apparatus for managing a psychological and physiological state of an individual using images, as stated in the Summary of the Invention on Page 5, lines 20-26, and in the Detailed Description on Page 7, lines 4-7.

As claimed, Claim 6 recites a device for creating a personalized preferred image response profile for an individual by having the individual view a first set of images and choosing images from the first set of images which provide a preferred response for the individual, wherein the personalized preferred image response profile defines preferred characteristics which are representative of common characteristics of the chosen images. The device is described in the Specification as a visualization system 116. Refer for example to Page 8, lines 2-4; Page 8, lines 17-23; and Figure 14 which describes visualization device 116 which presents the personal images to a person. The set of images are based on a personalized image profile based on cognitive decisions relating to connectedness, valence and arousal and on biometric analysis. Refer to the personal image profiler (box 24 in Figure 1, and described for example on Page 9, lines 4-5) and its inputs from Biosensor Device (box 48 of Figure 2) and data history (box 50 of Figure 2) as described on Page 9, lines 17-21.

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Claim 6 further recites a selector for selecting a second set of images from an image library which include characteristics that match the preferred characteristics of the personalized preferred image response profile. Personal image classifier 114 (Figure 14) and box 30 (Figure 1) is based on an image bank having images which have been classified using a therapeutic image classification system, and on the personal image profile, selects activating and deactivating images to create a personal image set. Refer to Page 7, lines 27-31; and Page 16, line 28 through Page 21, line 38.

Claim 6 further recites a display for displaying the selected second set of images to the individual to manage a psychological and physiological state of the individual. The device is described in the Specification as a visualization system 116. Refer for example to Page 8, lines 2-4; Page 8, lines 17-23; and Figure 14 which describes visualization device 116 which presents the personal images to a person with the goal to help manage, modify or maintain current physiological and psychological state.

Independent Claim 12 is directed to an apparatus for facilitating management by an individual of a psychological and physiological state of the individual using images, as stated in the Summary of the Invention on Page 5, lines 20-26, and in the Detailed Description on Page 7, lines 4-7.

Claim 12 recites a display for allowing an individual to show a first set of images chosen by the individual to one's self wherein the set of images are based on a personalized image profile based on cognitive decisions relating to connectedness, valence and arousal and on biometric analysis. The display allows an individual to show a set of images chosen by the individual to one's self. The display is described in the Specification as a visualization system 116. Refer for example to Page 8, lines 2-4; Page 8, lines 17-23; and Figure 14. The set of images are based on a personalized image profile based on cognitive decisions relating to connectedness, valence and arousal and on biometric analysis. Refer to the personal image profiler (box 24 in Figure 1, and described for example on Page 9, lines 4-5) and its inputs from Biosensor Device (box 48 of Figure 2) and data history (box 50 of Figure 2) as described on Page 9, lines 17-21.

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Claim 12 further includes a first device for measuring a physiological state of the individual as the individual views the first set of images. Biometric analyzer 108 (Figure 14) and box 20 (Figure 1) extracts the physiological activation state of user from one or more measured physiological parameters. Biometric analyzer (box 20) and cognitive analyzer measures (box 22 of Figure 1) physiological and cognitive states from the user during presentation of the master set of images, and as such can be used to determine a user's desired direction/preference for a session (e.g., relaxation, optimal performance, and excitation (box 44 of Figure 2). Refer to page 10, lines 10-30.

Claim 12 further includes a second device for recording images from the first set of images which provide a preferred response based on the measured physiological state of the individual, and for creating a personalized preferred image response profile that defines preferred characteristics which are representative of common characteristics of the recorded preferred images. Personal profiler 112 (Figure 14) and box 24 (Figure 1) and box 46 (Figure 2) combines the physiological and cognitive measures obtained from the biometric analyzer and cognitive analyzer to generate an individual's personal image profile for a given state response. Refer to Page 7, lines 23-26 and Page 9, lines 4-5 and lines 17-21.